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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,165	07/08/2003	Prashant G. Joshi	1302-49	2726

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EXAMINER
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POULOS, SANDRA K

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/617,165

Applicant(s)

JOSHI ET AL.

Examiner

Sandra K. Poulos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/20/04, 7/19/04, ic/3/C5
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because the unit of temperature are (oC) rather than (°C). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because of the legal phraseology "discloses," "comprises," and "said." Correction is required. See MPEP § 608.01(b).

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because of the following informalities:
  - a. On page 26, line 16 the meaning of the following is unclear:  
"\$-unsaturated carbonyl.
  - b. The tables for Examples 17-20 have gray shading that make the Effective Loading values difficult to read.
  - c. Page 6, lines 19-22 refer to Japanese Patent Publication No. 78155/1995 and gives a description that does not correspond to the actual document which discloses a document recognizing device. The relevance of Japanese Patent Publication No. 78155/1995 is unclear.  
  
Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The term "a hardness increasing amount " in claims 1 and 42 is a relative term which renders the claim indefinite. The term " a hardness increasing amount " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Attention is drawn to the specification, page 16, lines 5-7 wherein it is disclosed that for silica an increase of 1 to 100 phr, preferably 2 to 30 phr beyond the currently used levels is desired. Applicant discloses "preferred" and "desired" loading amounts but it is unknown whether these amounts correspond to the "hardness increasing amount" or if the components can give hardness to the composition outside of these preferred embodiments.

It is to be noted that for the purposes of examination, the examiner has assumed that any amount of the disclosed hardness increasing components is sufficient to increase hardness.

Claim 8, 16, 24, and 32 improperly recite a Markush group. Consequently, it is impossible to determine which elements of the group are required. When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper (emphasis added). See MPEP § 2173.05(h). Furthermore, most of the species are listed twice in the same claim.

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Claim 25 recites "the member is an MQ resin" wherein it is unclear whether it is the MQ resin wherein Q is  $\text{SiO}_{4/2}$  and M is  $\text{R}^1\text{R}^2\text{R}^3\text{SiO}_{1/2}$  as recited in claim 1 or the more broad "an MQ resin" which is recited in Claim 25. Examiner has assumed the former interpretation.

Claims 5, 13, 21, and 29 are rejected for using the letters  $\text{R}^1$  and  $\text{R}^2$  to denote different chemical groups than those defined for  $\text{R}^1$  and  $\text{R}^2$  in the parent claim 1.

Claim 39 is indefinite because it is unclear what "the resin" is referring to because parent claim 1 refers to an MQ resin, a thermoplastic resin, and a thermosetting resin, but never just "a resin" as such. Examiner has assumed "the resin" is the thermoplastic resin.

Claims 2-4, 6-7, 9-12, 14-15, 17-20, 22-23, 26-28, 30-31, 33-38, 39-41, and 43-45 are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon a rejected base claim.

### ***Claim Rejections - 35 USC § 102***

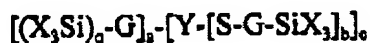
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-24, 33-34, and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Cruise et al (WO 99/09036).

Cruise '036 discloses a rubber composition with blocked mercaptosilanes (pg 3, lines 6-14). The silanes that disclosed are represented by the following formulae:



which are further described and examples of silanes are given in pages 3-10. The blocked mercaptosilanes are useful as coupling agents for rubbers and inorganic fillers (pg 21, lines 14-15). Suitable fillers include silica (pyrogenic and precipitated), siliceous materials including clays and talc, and carbon black (pg 28, lines 9-11). Particulate, precipitated silica is also sometimes used, particularly when the silica is used in connection with a silane (pg 28, lines 11-13). A combination of silica and carbon black is utilized for reinforcing fillers for various rubber products, including treads for tires (pg 28, lines 13-15). The vulcanized rubber composition should contain a sufficient amount of filler to contribute a reasonably high modulus and high resistance to tear (pg 28, line 24; pg 29, lines 1-2). Silica, such as precipitated silica, alumina and/or aluminosilicates together with reinforcing carbon black are used in the manufacture of rubber (pg 30, lines 11-21).

The properties of that the silica and carbon black contribute to the composition, i.e. reinforcing and contributing to high modulus, are equivalent to an increase in hardness. Thus, it is the examiner's position that Cruise '036 discloses silica and carbon black in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness

increasing components is sufficient to increase hardness (cf. paragraph 4 above).

Hence, the scope of the present claims falls within the silica and carbon black amounts disclosed by Cruise '036.

Other additives such as tackifying resins, zinc oxide, etc. are commonly used in rubber compositions (pg 30, lines 22-24; pg 31, lines 1-6). The process of making the composition also comprises the additional steps of preparing an assembly of a tire or sulfur vulcanizable rubber with a tread comprised of the rubber composition (pg 26, line 24; pg 27, lines 1-3). A specific example of making octanoylthio-1-propyltriethoxysilane is disclosed in Example 9, page 41. Example 15 (E) discloses a tire formulation comprising 3-octanoylthio-1-propyltriethoxysilane with SSBR, BR, silica, carbon black, and zinc oxide (pg 48-49).

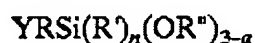
It is noted that octanoylthio-1-propyltriethoxysilane in the disclosed example is not specifically disclosed as mixed with pyrogenic silica, precipitated silica, or other fillers, however, the specification discloses that silanes are mixed with pyrogenic silica, precipitated silica, and fillers, and therefore using octanoylthio-1-propyltriethoxysilane with pyrogenic silica, precipitated silica, and fillers is still within the scope of invention as disclosed by Cruise '036.

Therefore, Cruise '036 anticipates the cited present claims.

6. Claims 1-5, 7, 33, 42, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Guillet et al (US 6,005,027).



Guillet '027 discloses a reinforced composition comprising rubbers with silanes and silicas and other additives (col 3, lines 19-41). A silane masterbatch comprises silica, an organofunctional silane, and additives, wherein the masterbatch is incorporated into a rubber composition (col 3, lines 32-41, 45-46; col 4, lines 4-6). The preferred silicas are precipitated silicas (col 4, lines 44-48). The organofunctional silane has the general formula:



wherein the specifics of the formula and examples of silanes are given in column 4. Guillet '027 discloses carbon black as an additive (col 7, lines 2-11). The masterbatch are of special interest in automotive tire treads and are made into such articles, a sample composition of which includes the silane-silica mix, rubber, zinc oxide, and carbon black (col 8, lines 8-17; col 18, lines 8-10). A rubber formulation comprising SBR, silica, zinc oxide, and silane masterbatch (contains silane and silica) is disclosed in the table in Example 31, columns 17-18. Examples 18-24 comprise a carbon black-silica blend that is mixed with a silane-silica blend (col 13, example 10; col 15, examples 18-24). The rubbers of the invention are disclosed as reinforced (col 3, lines 19-40). The properties of that the silica and carbon black contribute to the composition, i.e. reinforcement of the rubber, are equivalent to an increase in hardness. Thus, it is the examiner's position that Guillet '027 discloses silica and carbon black in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components is sufficient to

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increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the silica and carbon black amounts disclosed by Guillet '027.

Therefore, Guillet '027 anticipates the cited present claims.

7. Claims 1-3, 5, 7-8, 17-19, 21, 23-24, 42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Waddell et al (WO 99/31178).

Waddell '178 discloses a tire tread comprising: SBR, precipitated silica, titanium dioxide, and silane coupling agent (10% silica) (pg 15-16, Example 6 and Table 6). Preferably, the coupling agent is a bifunctional organosilane, such as those on page 7, lines 1-7 (pg 6, 30-31). Other white fillers that may be used are talc, calcium carbonate, and aluminum oxide (pg 6, lines 4-15). The compositions are used to make tires (pg 9, lines 23-24). The rubber of the invention is disclosed as reinforced (page 5, lines 1-3). The properties of that the silica contribute to the composition, i.e. reinforcement of the rubber, are equivalent to an increase in hardness. Thus, it is the examiner's position that Waddell '178 discloses silica in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components is sufficient to increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the silica amounts disclosed by Waddell '178.

Therefore, Waddell '178 anticipates the cited present claims.

8. Claims 1, 7-8, 33, 42, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Stuhldreher (EP 894819).

Stuhldreher '819 discloses a tread rubber composition with silica, a silane coupling agent, carbon black, and kaolin clay (paragraphs 2 and 9). The composition is made into tire tread (paragraph 1). Example A in Table 1 specifically discloses a tire rubber formulation comprising: SBR, carbon black, silica, kaolin clay, and silane.

The formulations result in similar or better modulus and Shore A hardness (paragraph 19). The properties of that the silica and carbon black contribute to the composition, i.e. modulus and Shore A hardness, are equivalent to an increase in hardness. Thus, it is the examiner's position that Stuhldreher '819 discloses silica and carbon black in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components is sufficient to increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the silica amounts disclosed by Stuhldreher '819.

Therefore, Stuhldreher '819 anticipates the cited present claims.

9. Claims 1-4, 7, 33, 38, 42, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Ajiro et al (EP 967244) in view of Hawley's Condensed Chemical Dictionary.

Ajiro '244 discloses a rubber composition rubber composition for a tire tread and pneumatic tire using the rubber composition (paragraph 1). The composition includes rubber, carbon black, novolac type phenol resin, silane coupling agent with silica, and hexamethylenetetramine (paragraph 12). Specific silane coupling agents are disclosed in paragraph 29. Table 1 shows various formulations for the rubber composition. The resin used in the invention is blended to improve modulus (paragraph 31 and 56). The resin in the reinforcing agent and is mixed with silane and silica (paragraph 7).

The rubber of the invention is disclosed as reinforced and has improved modulus. The properties disclosed above that the resin contributes to to, i.e. reinforcing and increasing modulus, are equivalent to an increase in hardness. Thus, it is the examiner's position that Ajiro '244 discloses the resin in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components is sufficient to increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the resin amounts disclosed by Ajiro '244.

It is examiner's position that the novolac type phenol resin is a thermosetting resin because hexamethylenetetramine is present in the composition. Hexamethylenetetramine cures phenolformaldehyde resins, therefore, the novolac resin becomes a thermoset (Hawley's Condensed Chemical Dictionary pages 598-599, 1141).

Therefore, Ajiro '244 anticipates the cited present claims.

10. Claims 1-5, 35-36, 42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki et al (JP 11-059116), wherein a machine translation from JPO is used hereafter.

Aoki '116 discloses a tire with a rubber composition comprising styrene-butadiene rubber, carbon black, silica, silane coupling agent, and polyethylene (abstract, paragraph 4). The polyethylene is high-density polyethylene or low-density polyethylene (paragraph 5 and 13). The silane coupling agent is given by the formula in paragraphs 6-8. When only silane and silica are added to the rubber there is a decreasing modulus and tear resistance, and therefore polyethylene is added to the composition in order to offset the undesired properties (paragraphs 1-4, 13)

The rubber of the invention is disclosed as having improved tear resistance and modulus when the polyethylene is added to the rubber composition. The properties disclosed above that the polyethylene contributes to to, i.e. improving tear resistance and modulus, are equivalent to an increase in hardness. Thus, it is the examiner's position that Aoki '116 discloses the polyethylene in a hardness increasing amount. In addition, the present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components, in this case the polyethylene, is sufficient to increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the resin amounts disclosed by Aoki '116.

Therefore, Aoki '116 anticipates the cited present claims.

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11. Claims 1-3, 5, 7-8 25-27, 29, 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Fitzgerald et al (US 5,623,028).

Fitzgerald '028 discloses a curable rubber composition with fumed silica, MQ resins, and preferably a silanol blocking agent such as vinyl-triethoxysilane (col 7-8; claim 4). The MQ resin has  $M=R^1_3SiO_{1/2}$  and  $Q=SiO_{4/2}$  further defined in column 8. Fitzgerald '028 discloses additives such as alumina, mica, titanium dioxide and the like (col 11, lines 18-36). The present claims do not specifically disclose a required amount for the hardness increasing member, consequently, the examiner has assumed that any amount of the disclosed hardness increasing components, in this case the MQ resin, is sufficient to increase hardness (cf. paragraph 4 above). Hence, the scope of the present claims falls within the resin amounts disclosed by Fitzgerald '028.

Therefore, Fitzgerald '028 anticipates the cited present claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 35, 37, and 39-41 are rejected under 35 U.S.C. 103(a) as being anticipated by Cruise '036 in view of Patitsas et al (WO 99/22951).

The discussion with respect to Cruise '036 in paragraph 5 above is incorporated herein by reference.

Cruise '036 does not disclose a rubber composition with a thermoplastic resin.

Patitsas '951 discloses a rubber tire composition with a thermoplastic reinforcing agent (pg 1, lines 29-36). The thermoplastic reinforcing polymer is polyamide, nylons,

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polypropylene, and others listed on pages 1-2 and page 3, lines 26-31. Various additives that are disclosed are carbon black, silica, and zinc oxide (pg 3, lines 19-21).

It would have been obvious to one of ordinary skill in the art to make a formulation of rubber that combined the silane-silica-rubber mixtures by Cruise '036 and the thermoplastic reinforced rubber mixtures by Patitsas '951, thereby obtaining the cited present claims. One would have been motivated to do so because Patitsas '951 discloses that when thermoplastic reinforcing polymers are introducing into rubber, the tire components have improved reinforcement properties and provide a tire with improved high speed properties (pg 1, lines 16-17, 29-34). One would expect success with such a combination because both formulations are rubber comprising similar components such as silica and carbon black.

13. Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being anticipated by Cruise '036 in view of Fitzgerald '028 and further in view of the information given by Hawley's Condensed Chemical Dictionary.

The discussion with respect to Cruise '036 in paragraph 5 above and Fitzgerald '028 in paragraph 11 above is incorporated herein by reference.

Cruise '036 does not disclose a rubber composition with an MQ resin.

It would have been obvious to one of ordinary skill in the art to make a formulation of rubber that combined the silane-silica-rubber mixtures by Cruise '036 and the MQ resin-silica-rubber mixtures by Fitzgerald '028, thereby obtaining the cited present claims. One would have been motivated to do so because Fitzgerald '028



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discloses that the MQ resin is a mold release agent (col 9, line 52), which prevents adhesion of a material to itself or another material and are often used in the rubber industries (Hawley's Condensed Chemical Dictionary, pgs 1 and 790). One would expect success with such a combination because both formulations are rubber comprising similar components such as silica and mineral fillers.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cohen et al (US 5780538 A) discloses a rubber composition with precipitated silica, carbon black, and silane coupling agent.

EP 655480 discloses carbon black as a reinforcing agent in a rubber composition with silane.

EP 732362 discloses carbon black, precipitated silica, and alumina as a reinforcing agent in tire composition of rubber and organosilane coupling agents.

Harris et al. Silane Coupling in Carbon Fibre-Reinforced Polyester Resin. Journal of Materials Science 4 (1969) 432-438. Discloses silane in carbon fiber reinforced polyester resin.

WO 9845361 disclose rubber with carbon black, silica, silane, thermoplastic reinforcement, and fillers.

Eguchi et al (US 5,530,076) discloses a silicone rubber composition with MQ resins.

WO 93/19122 discloses a silicone rubber with MQ resin and silica.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571)

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272-6428. The examiner can normally be reached on M-F 7:00-4:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

Sandra K. Poulos  
12/09/2005

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